

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for rendering an image of an object having a curved surface, comprising:
 - a determiner that determines M number of attributes relating to rendering the image, M being an integer, wherein the determiner determines at least one of a diffuse lighting component, ~~and at least one of~~ an ambient lighting component, a specular lighting component, an intensity, a pole vector, an equator vector, a latitude, a longitude, a color and a texture;
 - a first processor that pre-computes N number of attributes relating to rendering the image, N being an integer less than or equal to M, and the N number of attributes being pre-computable and stored in at least one lookup table, and where the first processor pre-computes for one or more pixels, characterized by an x attribute, a y attribute and a z attribute, the N number of attributes including at least one of an ambient lighting component, a diffuse lighting component, a specular lighting component, a pole vector, an equator vector and a pole crossing equator vector; and
 - a second processor that computes the M number of attributes, the second processor employs the pre-computed N number of attributes from the at least one lookup table to compute the M number of attributes.
2. (Original) The system of claim 1, the N number of attributes having characteristics associated with the symmetrical nature of objects having a curved surface.
3. (Original) The system of claim 1, the M number of attributes including one or more light sources.
4. (Original) The system of claim 1, the M number of attributes including one or more viewing positions.

5-6. (Canceled)

7. (Previously presented) The system of claim 1, wherein the first processor pre-computes an edge buffer for one or more objects.

8. (Previously presented) The system of claim 1, the object is a lit sphere.

9. (Previously presented) The system of claim 8, the object is a textured sphere.

10. (Previously presented) The system of claim 1, the object is bump-mapped.

11. (Currently Amended) A method for rendering an image of an object having a curved surface, comprising:

determining an M number of attributes relating to rendering the image, M being an integer, wherein the M number of attributes comprises, computing for one or more pixels, and at least one of a diffuse lighting component, and at least one of an ambient lighting component, a specular lighting component, an intensity, a pole vector, an equator vector, a latitude, a longitude, a color and a texture;

pre-computing an N number of attributes relating to rendering the image, N being an integer less than or equal to M, where the N number of attributes are stored in at least one lookup table, and where the N number of attributes comprises, computing for one or more pixels, characterized by an x attribute, a y attribute and a z attribute, the N number of attributes including at least one of an ambient lighting component, a diffuse lighting component, a specular lighting component, a pole vector, an equator vector and a pole crossing equator vector;

employing the pre-computed N number of attributes from the at least one lookup table to compute the M number of attributes ~~computing the M number of attributes~~; and

rendering an image based, at least in part, on the N pre-computed attributes and the M computed attributes.

12-13. (Canceled)

14. (Currently Amended) The method of claim 11 ~~13~~, wherein pre-computing the N number of attributes relating to rendering the image further comprises:

pre-computing an edge buffer for one or more spheres.

15. (Original) The method of claim 11, the N number of pixel attributes having characteristics associated with the symmetrical nature of objects having a curved surface.

16. (Original) The method of claim 11, the M number of attributes including one or more light sources.

17. (Original) The method of claim 11, the M number of attributes including one or more viewing positions.

18. (Original) The method of claim 11, wherein the object is a lit sphere.

19. (Original) The method of claim 18, wherein the sphere is textured.

20. (Original) The method of claim 11, wherein the object is bump-mapped.

21. (Original) A computer-readable medium having computer-executable instructions for performing the method of claim 11.

22. (Currently Amended) A system that facilitates rendering an image of an object having a curved surface, comprising:

a determination component that determines a plurality of attributes related to rendering the image, wherein the determination component determines at least one of a diffuse lighting component, ~~and at least one of~~ an ambient lighting component, a specular lighting component, an intensity, a pole vector, an equator vector, a latitude, a longitude, a color and a texture;

a pre-computation component that pre-computes a subset of the attributes related to rendering the image and stores the pre-computed subset of attributes in at least one lookup table.

wherein the pre-computation component computes for one or more pixels, characterized by an x attribute, a y attribute and a z attribute, the pre-computed subset of attributes including at least one of: an ambient lighting component, a diffuse lighting component, a specular lighting component, a pole vector, an equator vector and a pole crossing equator vector; and
a computation component that computes the plurality of attributes, the computation component employs the pre-computed subset of attributes from the at least one lookup table to compute the plurality of attributes.

23. (Previously presented) The system of claim 22, the subset of attributes have characteristics associated with a symmetrical nature of objects having a curved surface.

24. (Previously presented) The system of claim 22, the plurality of attributes include one or more light sources.

25. (Previously presented) The system of claim 22, the plurality of attributes include one or more viewing positions.

26-27. (Canceled)

28. (Previously presented) The system of claim 1, the pre-computation component computes an edge buffer for one or more objects.

29. (Currently Amended) A system that facilitates rendering an image of an object having a curved surface, comprising:

means for determining a plurality of attributes related to rendering the image, wherein the determination means determines at least one of a diffuse lighting component, ~~and at least one of~~ an ambient lighting component, a specular lighting component, an intensity, a pole vector, an equator vector, a latitude, a longitude, a color and a texture;

means for pre-computing a subset of the attributes related to rendering the image and storing the pre-computed subset of attributes in at least one lookup table, where the pre-computed subset of attributes comprises, computing for one or more pixels, characterized by an x

attribute, a y attribute and a z attribute, the pre-computed subset of attributes including at least one of an ambient lighting component, a diffuse lighting component, a specular lighting component, a pole vector, an equator vector and a pole crossing equator vector; and

means for employing the pre-computed subset of attributes from the at least one lookup table to compute the plurality of attributes ~~computing the plurality of attributes.~~